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Value Drivers of Greek Purchasers
regarding Online Travel Services

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Abstract

This study deals with investigating determinants of perceived value. Theoretical background suggests that perceived value can be neither uniquely defined nor assumed to be always affected by the same factors. Findings regarding Greek purchasers of online travel services suggest that the relation between perceived value and perceived cost-risk and demographic-cultural characteristics significantly differentiates among groups with different characteristics. Evidence pointing to a non-linear relation between perceived value and its determinants is also provided. Therefore, suggestions for further research focus on the use of statistical methods that assume no linear relation between dependent and independent variables, as well as the use of non-statistical methods that are free from any assumption regarding this relation, to explain perceived value.

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Introduction

Attracting and/ or retaining customers/ clients had always been one of corporations' top priorities. The logic is simple. In capitalist economic systems, companies, among other objectives, seek to maximize their profits and profits are the difference between revenues and expenses. This means that one of the most ultimate objectives is actually achieved when revenues are the highest possible while, at the same time, expenses are the lowest possible. Revenues simply represent what a company receives for what it offers (sells) to its customers, be it individuals or organizations. To generate revenues, companies must, by definition, "suffer" expenses that, actually, represent the compensation paid to inputs (employees, vendors, the State and so on). Consequently, companies have to find ways to take extract the maximum output, in terms of revenues, from their inputs in order to achieve their major objective (reported above). One way to do so is by better understanding their customers, in terms of needs, thoughts, buying behavior, and so on, so that less expenses are necessary to generate more revenues. By "unlocking" consumer behavior and, particularly, factors affecting consumer behavior companies are in a position to provide goods and services that are or, at least, are perceived more valuable (or, simply, "worthy to buy") than competitive goods and services. In this way, companies build a strong competitive advantage, though not the only one required, that assist them in dealing with competition, establish a strong market position, and retain/ expand their customer base.

As Pride and Ferrell (2003) note, understanding customers is a complex matter but, at the same time, not a highly scientific one. The term "complex" is used to portray the fact that consumer behavior depends on a great number of factors-variables. However, all these factors or, at least, most of them are easy to understand and explain. As the authors note, "value driven customers are concerned both with price and quality of products" (p.534). Simply put, a value driven customer compares what they receive, i.e. how they benefit, from a product to what the product costs to them, i.e. what they sacrifice to acquire it. Between two competitive products, value driven customers will always choose the one that maximizes the difference "benefits

minus costs". Based on this rather simplistic but, at the same time, quite realistic, argument, companies must find ways to offer products that are highly beneficial to customers with the lowest possible cost. In this way, they are able to gain significant competitive advantages like the ones earlier reported.

Nowadays the world economy still thrives to come out of the recent financial crisis (started in the US in 2008) that turned into economic recession in many countries, Greece being probably the most representative example. In short, the crisis led to a number of changes, e.g. increased unemployment and austerity measures, that suppressed people's purchasing power. For customers, less purchasing power means less consumption. Within this rather "hostile" environment, companies find it even more difficult to stay alive and prosper. As already argued, survival and prosperity pass through revenue generation and, thus, the topic of offering valuable goods and services is becoming of high priority to almost all profit seeking organizations. Simply put, if companies better understand their customers, they have a higher probability of being competitive and effectively deal with tough times they are going through.

Greece could be classified into the most affected "victims" of economic recession but despite economy's deterioration at the national level, the travel and tourism industry continues to significantly contribute to a number of economic areas such as GDP and employment. According to Chrepa (2014) the tourism in Greece accounts for about one-sixth of the economy (16.4% of GDP in 2012) and it is estimated that the number of tourists visiting Greece will increase from 17.9 million in 2013 to 18.5 million in 2014. It is not surprising that the tourism industry is often likened to "the Greek economy's locomotive". Since the tourism industry is considered so important for Greece's recovery, the question that normally comes up is "how to assist it in being so". One of the most obvious answers would, probably, be related to the number of visitors in the sense that more visitors normally lead to more revenues, more employment and so on. Simply put, Greece will have to retain current visitors and attract new ones by offering competitive travel and tourism products (services). Based on what has already been reported, offering competitive products is synonymous to offering valuable products, i.e. products that maximize the difference between customer benefits and costs.

This study deals with investigating value drivers of travelers to Greece within the context of e-services (e-commerce). More precisely, the study seeks to reveal factors that significantly affect people's choices when it comes to visiting Greece. The focus on e-commerce stems from the fact that Internet sets a highly competitive context among organizations since it provides consumers with the potential of examining several alternatives without suffering significant costs in terms of time and money. As Anderson and Srinivasan (2003) put it, "competing businesses are only a mouse click away in e-commerce settings, so it is critical that companies understand how to build customer loyalty in online markets" (p.124). However, "internet vendors experience disappointment in converting these clicks into purchases. It has been observed that a few web site visitors (1.3%-3.2%) return to make purchases" (Kim and Gupta, 2009, p.477) Moreover, the study is interested in examining which factors, if any, are responsible for respective variation across different segments of travelers because "loyalty has been found to vary significantly under different conditions" (Anderson and Srinivasan, 2003, p.124). Sanchez et al. (2006) report that these conditions could be described based on individual characteristics of customers, culture, and time. The reasoning of the study's purpose is simple. As will be shown later on, benefits received from goods and services are, to a great extent, a subjective matter. To explain, not all customers receive or think they receive the exact same benefit from a certain good or service because of various factors that will be examined later on this study. Consequently, if travel and tourism related businesses understand how different segments of customers perceive "value", they will be able to provide custom-made goods and services that will embody different beneficial characteristics according to each segment's particular properties.

This study is structured as follows. The next chapter provides a brief review of relevant theoretical background. It must be noted, though, that relevant theory is much extended and, thus, it is almost impossible to fully review it within the study's space limitations. Moreover, an extended theory review would be of limited contribution since it can already be found elsewhere. Hence, the focus is on building a sufficient theoretical background that will assist the present study's empirical investigation. Following this chapter, we provide a review of relevant empirical

evidence with particular focus on studies investigating factors affecting perceived value of travelers. This chapter also formulates the research hypotheses to be examined. The third chapter deals with the empirical investigation of value drivers and their variation across travelers in Greece. The last chapter concludes and offers proposals for further research on the topic.

Review of theoretical background related to "value"

The current chapter deals with briefly reviewing the theoretical background of the topic. First, the reasoning of studying "value" is explained followed by defining value. In the last part of the chapter, factors affecting value are described.

The importance of "value"

"Value" is important for two basic reasons. First, it plays an important role in predicting purchase behavior (Chen and Dubinsky, 2003) and, second, it is an important element of managing long-term customer relationships (Pride and Ferrell, 2003). To explain, when customers assign a high value to a company's products, it is very probable that the company "will do business" with them for many years even if the benefits of future products are less (or assigned less value) than the ones offered by current products. Simply put, value also helps create loyal customers and loyalty is naturally associated with reluctance to switch to other products. As Petrick (2002) points, "value has been argued to be the most important indicator of repurchase intentions" (p.119). At this point, readers should think of others aspects of life to understand how loyalty works. For example, people are loyal to God, Allah, Buddha, and so on and it is rather improbable, although not totally impossible, to switch from Christianity, Islam, or Buddhism to other religions. The same logic applies to football fans. Football fans choose, for whatever reason, to support a certain club and, in almost all cases, stay loyal to it for the rest of their lives. As already reported at the introductory part of the study, maintaining customers is of essence for today's companies.

At the practical level, value is of importance when companies form their marketing mix since different customers perceive different product aspects being "valuable". Hence, unlocking the way customers assign value to products helps marketers provide different people with different products whenever possible. In the long-term this leads to more and more customers preferring a specific product because it provides them with more benefits compared to the costs it incurs.

Definition(s) of "perceived value"

From a scientific point of view, we have already cited the definition of value provided by Pride and Ferrell (2003) that defines "value" as the difference between the benefits received by a good or service and the costs suffered to acquire it. This approach represents, according to Al-Sabbahy et al. (2004), acquisition value which is part of the two-dimensional value definition. Before proceeding, it should be noted that costs to the customer can be defined from both an objective and a subjective perspective. The objective part of cost relates to how much is paid for a product. This part of cost is the same for all customers. By contrast, not all customers suffer the same, in terms of "sacrificing" other goods to buy a specific one, since the same amount of money constitutes a smaller sacrifice for a highly paid person than it does for a person earning a few euros a month. Consequently, "value" is related to "importance" of a product, in terms of sacrifice just described, and is, by definition, a subjective matter. This is why the term "perceived value" shall be used instead of "value". Investigating perceived value is, therefore, closely related to factors that are responsible for defining "importance". We will come back to this issue later on at this chapter. Apart from acquisition value, as described above, Al-Sabbahy et al. (2004) point out that the term "value" includes also transaction value which has been defined as the difference between the consumers' internal reference price and the price offered within the context of a special deal. Internal reference price refers to the price in buyers' memory that they use as a basis for judging and/or comparing actual prices, i.e. the "expected" or "fair" price or range of prices for the product in the customer's mind.

As Babin et al. (1994) note, "the search for a precise definition of 'value' has proved an enduring endeavor for a wide range of philosophers and researchers" (p.644) and "value conceptualizations may vary depending on a study's context" (p.645). Inconclusiveness in value definitions is also apparent among non-academics, scientist, or practitioners. Zeithaml (1988) conducted an empirical investigation of people's perceptions about price, quality, and value. What he concluded based on respondents' answers is that "What constitutes value – even in a single product category – appears to be highly personal and idiosyncratic" (p.13). In particular, some respondents defined

value as “low price” relating to situations such as when products are sold on sale, customer may use coupons, special offers and so on. Others defined it as “whatever I (they) want from the product” and described it as being related to safety matters (e.g. a product is safe for one's children), environmental protection (little containers lead to less waste), convenience (ready-to-eat food) etc. Respondents also defined value as “the quality I (they) get for the price I (they) pay” providing answers like “value is price first and quality second”, “value is the lowest price for a quality brand”, and “value is the same as quality”. A similar definition was the following: “value is what I get for what I give”. This definition was further described by answers like “value is how many drinks you can get out of a certain package”, “whatever makes the most for the least money”, “value is what you are paying for what you are getting” etc.

According to Sheth et al. (1991), “value” can be further partitioned into 5 elements. The *functional value* is defined as the perceived utility acquired from an alternative's capacity for functional, utilitarian, or physical performance. Traditionally, functional value is presumed to be the primary driver of consumer choice. This assumption underlies economic utility theory and popularly expressed in terms of “rational economic man.” *Social value* is defined as the perceived utility acquired from an alternative's association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. *Emotional value* of an alternative is defined as the perceived utility acquired from an alternative's capacity to arouse feelings or affective states. An alternative acquires emotional value when associated with specific feelings or when precipitating or perpetuating those feelings. *Epistemic Value* epistemic value is defined as the perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. *Conditional value* is defined as the perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker. An alternative acquires conditional value in the presence of antecedent physical or social contingencies that enhance its functional or social value.

The above mentioned definitions make clear that “value” can take several forms/ aspects but, at the same time, one aspect does not prevent another aspect from appearing or not appearing. As Sheth et al. (1991) suggest, values are

independent, relating additively and contributing incrementally to choice. This simply means that values do not necessarily appear altogether and, similarly, do not affect customers one way. Based on the definitions just presented, perceived value could be defined as the subjective level of importance assigned to a product or service after comparing the effects on functional, social, emotional, epistemic, and conditional status quo assigned to a good to the costs that are necessary to acquire and consume it.

Factors affecting "perceived value"

According to Al-Sabbahy et al. (2004), among factors that affect value stimulus and personal response factors such as perceived characteristics of product, interest in product, individual needs, motives, expectations, personality, and social status are of the most important ones. This is natural since, as already has been argued, assigning value to goods and services is a highly subjective matter. Pride and Ferrell (2003) classify factors affecting consumer behavior into 3 broad categories, namely situational influences, psychological influences, and social influences.

Situational influences include factors such as physical surroundings, social surroundings, time perspective, reason for purchase, and momentary mood. These factors have been argued to affect consumer behavior both biologically and psychologically. For example, Parker and Tavassoli (2000) explain that dopamine and serotonin, two major neurotransmitters of human body, are responsible for human body's stability of internal environment, e.g. how our body assures that its temperature remains at the appropriate level when external temperature changes. These chemicals are stimulated by sunlight and, consequently, when sunshine is less abundant and less intense, "dopamine and serotonin need to be stimulated in other ways to achieve psychological homeostasis" (p.39). Stimulation of neurotransmitters can be done "artificially" by consuming ethanol, caffeine or nicotine. This is why in countries close to Poles, where sunshine lasts for shorter periods of time, people tend to consume more alcohol to balance the effect of decreased sunlight. Consequently, alcohol beverages are expected to be valued higher in these countries than in countries where dopamine and serotonin are naturally stimulated by sunlight.

Emotional factors, such as love, hate, joy, boredom, anxiety, pride, anger and so on (Sanchez et al., 2006) that responsible for momentary mood may affect consumers' perception of value especially when affecting their perceived risk. Particularly, the mental accounting theory suggests that "people weight positive outcomes that are considered certain more strongly than positive outcomes that are probable"(Kim and Gupta, 2009, pp.4777-487). This explains why consumers tend to be risk averse and assign higher value to certain but lower benefits.

Psychological surroundings include perception, motives, learning, attitude, personality, and lifestyle. Perception refers to the way people collect, organize, and interpret information. Generally, information processing begins with a stimulus, called "information input", goes on with organizing information, and is completed by a decision making, a specific conclusion and so on (i.e. information "output"). However, as Zinkhan and Braunsberger (2004) note, not all people process information in the same way because of a number of factors such as experience and knowledge. Motives are "internal energizing forces that orient a person's activities towards satisfying needs or achieving goals" (Pride and Ferrell, 2003, p.205). One of the most popular motivation theories is Maslow's pyramid of needs. Maslow proposes that humans follow a specific pattern to satisfy their needs depending on which needs have been already satisfied. The "basis" of Maslow's pyramid includes physiological needs which are closely related to biological survival (e.g. food and clothing). The pyramid continues with safety needs (e.g. shelter) and social needs (e.g. belonging to groups like family). The upper levels of pyramid include esteem needs (e.g. practicing a respected profession) and the need of self-actualization (being happy with one's self). It is obvious that the value assigned to a certain product will vary depending on which customer needs have already been satisfied. For example, homeless people will assign no material value to luxury cars because they first have to satisfy the need for food and shelter. By contrast, highly paid executives will find it more valuable to buy a luxury car in order to satisfy their esteem value.

Social influences include roles, the family, reference groups and opinion leaders, social classes, and culture. Roles refer to what people do in their lives from a personal and professional point of view. Being a father as well as being a general manager could be both viewed as roles. Roles can strongly defined what is valuable and what is not

because, in some cases, they are closely related with both official and unofficial rules and norms that define “dos and don'ts”. Culture has an analogous effect on value perception because in many cases it defines choices attitude and there are reasons to believe that it is difficult for cultures to lose their special characteristics because such characteristics depend on factors that are difficult to change (Parker and Tavassoli, 2000). In more detail, culture factors affecting perceived value consists of power distance (the degree to which the less powerful members of organizations accept that power is distributed unequally), individualism (the degree to which a society emphasizes the role of the individual), masculinity (degree to which a society emphasizes traditional masculine values such as competitiveness, achievement, and ambition as opposed to others such as nurturing, helping others, and valuing quality of life), uncertainty avoidance (the degree to which people feel threatened by uncertain, unstructured situations and ambiguity), long-term orientation (fostering of virtues oriented towards future rewards) (Yoon, 2009). For example, Americans, especially those living at south USA, consider guns valuable not only because gun possession is legal but also because it had passed from generation to generation that all citizens “must” have a gun to protect themselves at any given time. The difficulty to change this attitude had become apparent by the recent debate (started after several incident of innocent citizens being shot and killed by other citizens) about gun possession and the reluctance of the State to forbid gun possession and use.

Apart from personal factors affecting behavior and, hence, perception of value, value depends on what is offered for what is paid for (see value definition already reported) or, more simply, on benefits and costs. Benefits include everything that provides customers with material, psychological, and social advantages and/ or positive feelings. For example, Ehrlich and Fischer (1982) propose that costs include cost of disappointing purchases. It is obvious that a thorough description of all possible product benefits is impossible due to fact that benefits depend on the product, e.g. a car offers the benefit of safe transportation, a drink at the bar offers happiness of meeting people, and so on. To give an example of what benefits could refer to within a specific context we describe benefits examined by Bradley and Sparks (2011) in their

empirical investigation regarding value in timeshare¹. In particular, the authors examine 11 benefits of timeshare, namely financial, quality, fun activities, rest and relaxation, gift-giving, flexibility, new experience, status and esteem, family, socializing, and convenience. Within a different context, Mohd-Any et al. (2014) suggest that participation of consumers to product design also constitutes a benefit and, in more detail, a social one. It follows then benefits could be simply classified into material and material (in the sense of difficult to measure) ones. Material benefits could include all measurable benefits, e.g. weight, height, distance, time and so on, while difficult to measure benefits could include the rest of benefits received from a specific product or service such as improvement of social status, happiness etc. With respect to the second group of benefits, however, subjectivity would still be an issue, e.g. is there a truly objective way to measure social status and happiness?

1 A timeshare is a property with a particular form of ownership or use rights, usually resort condominium units, in which multiple parties hold rights to use the property, and each sharer is allotted a period of time.

Review of relevant empirical evidence and research hypotheses

The first part of the current chapter deals with briefly reviewing recent empirical findings with respect to determinants of perceived value. Since we are particularly interested in tourism industry and online shopping, most reported studies deal with these topics. Our research hypotheses are developed at the second part of the chapter.

Recent empirical evidence

It is suggested that consumers may behave in a different manner when shopping online than when they are in a similar offline situation. This can be attributed to a variety of including easiness of information gathering, easiness of use, and time saving (Chen and Dubinsky, 2003). Therefore, it is expected, at least theoretically, that perception of value when shopping online could be different to that when shopping in the traditional way. In what follows, we classify relevant studies into three groups. The first consists of those reporting evidence on perceived price and risk as being perceived value determinants. Next we report studies examining factors that could be viewed as “physical surroundings”, for instance a website's aesthetics. The third group of studies deals with more “qualitative” factors like psychological and sociological ones. It should be noted that it is difficult to explicitly classify a factor into just one of the three groups because of interaction among them. Despite this, we believe that the adopted classification provides a well-organized structure.

Perceived price and risk are among the most studied factors of perceived value. Chen and Dubinsky (2003) found that, in the case of online shoppers, perceived value is unaffected by perceived risk but is negatively related to product price. Al-Sabbahy et al. (2004) conclude, after studying hotel and restaurant customers, that perceived value is uni-dimensional given that what is received for what is given (acquisition value) represents the essence of perceived value while transaction value was characterized as “additional value beyond that provided by acquisition value”. Sanchez et al., (2006) report evidence regarding three major touristic venues of Spain: Madrid, Valencia, and Coruna. They find that price does not only act before the purchase, but after consumption it plays a fundamental role in the valuation of the overall experience.

Gallarza and Saura (2006) conclude, based on a sample of students (from two universities located at Valencia and Madrid) traveling in groups during spring break that perceived value is insignificantly related to perceptions of benefits referred to efficiency and negatively related to perceptions of costs referred to perceived monetary price, risk, time, and effort. Bieger et al. (2007) report, based on a sample of 1,000 passenger at Zurich airport, that fare is the most important decision criteria for an intercontinental flight ticket in the business and economy class while the number of stops is the second most important one. Benefits such as direct connections are slightly more important for economy passengers than for business passengers while the opposite happens with respect to the brand of the airline and the number of daily connections. Kim and Gupta (2009) examined potential vs. repeated online customers and concluded that perceived price and risk negatively influence perceived value. However, perceived risk has a stronger effect than perceived price on perceived value for potential customers, i.e. customers that are about to, but have not yet, shop online. Conversely, the reverse holds for repeat customers, i.e. customers that have already online shopping experience. Wu et al. (2014) show that, for online buyers (from Taiwan), each category of perceived costs exhibits different effects on the perceived value and repurchase intentions, while the information searching cost has the greatest influence. Gallarza and Saura (2006) – see above for sample – found that perceived value is positively related to perceptions benefits referred to service quality, play, aesthetics, and social value. Lai et al. (2007) reveal that, for customers of travel websites, the travel website service quality will affect customer's satisfaction and loyalty through customer relational benefits. When the service quality of travel website is better in responsiveness, quality of information, and empathy, the customer will perceive more confidence benefits. When the travel website has more empathy, the customer will perceive more social and special treatment benefits. Chen and Tsai (2008) conclude that the higher the level of involvement, the larger is the likelihood that perceived value will lead to greater customer loyalty (their sample includes respondents who bought an accommodation product through a TV-shopping channel when they checked in at hotels). According to Kim and Niehm's (2009) findings, with respect to undergraduate students in USA, entertainment and trust were significant predictors of perceived value. Experience quality was found to have a positive effect on perceived

value for visitors of major cultural heritage sites in Tainan City (Taiwan) in the study of Chen and Chen (2010). Within the “special” context of B2B business, Hulten (2012) studies a sample of employees from B2B companies located in Sweden and reveals a positive relationship between communication about upgraded offerings, usage situations, and operative value drivers that customers perceive in relationships with their key suppliers (interaction with suppliers may result in perceptions of increased efficiency and ability to meet customers’ needs). Prior (2013) concludes that the activities of supplier representatives influence customer perceived value in complex industrial solution delivery. In particular it is found that supplier representatives enact four categories of activity, namely communications, planning, risk management, and, coordination during the delivery process (findings are based on eleven discussion boards of ten online communities on the professional social networking site LinkedIn.com).

Brengman et al. (2005) report that the Web-usage-related lifestyle is not significantly different between American and Belgian consumers (households) despite the fact that Belgium is an emerging market as far as the Internet is concerned, while the United States is an advanced one. Wang et al. (2013) collect data from an online survey in Taiwan and find that ethical self-efficacy for online piracy has a significant positive influence on purchase intention and a positive moderating effect on the relationship between perceived value and purchase intention. Consumers who have high confidence in ethical usage of online contents tend to have a higher behavioral intention to purchase online content services than those who have low confidence in the same moral event.

Development of research hypotheses

As can be inferred from empirical findings presented above, many studies examine perceived benefits and costs (and risks) as determinants of perceived value. However, relevant evidence is inconclusive in the sense that the relationship between these factors and perceived value is not always found to be significant. Additionally, it is not clear whether personal characteristics significantly influence perceived value.

Therefore, research hypotheses are stated in “open” form without explicitly assuming a positive or negative relationship between perceived value and its determinants. We classify factors affecting perceived value into two major groups: perceived costs (including risks) and personal characteristics. Consequently, the 2 major research hypotheses are as follows:

Hypothesis 1 Perceived value of online customers of travel services is significantly related to perceived costs-risks

Hypothesis 2 Perceived value of online customers of travel services is significantly related to consumer personal characteristics

Finally, we examine whether findings regarding research hypotheses are different among groups of different personal characteristics, namely demographic and cultural ones.

Hypothesis 3 Findings differentiate according to demographics

Hypothesis 4 Findings differentiate according to cultural characteristics.

Empirical research

The first three sections of this chapter describe measures, statistical methods, and the sample used to test research hypotheses. The last section reports relevant findings.

Measures

We use an 18-item questionnaire (see Appendix) to collect data (see next section for sampling) for variables under investigation. We use four initial measures (questions) for perceived value as in Anderson and Srinivasan (2003). Questions are abbreviated “PVx” where “x” stands for the number of sub-question.

- PV1 Products purchased at this Web site are very good value for money
- PV2 Products purchased at this Web site are considered to be a good buy
- PV3 You get what you pay for at this Web site
- PV4 Products purchased at this Web site are worth the money paid

Perceived costs are measured in terms of price (Kim and Gupta, 2009) and time spent and easiness to shop on the website (Wu et al., 2014). Perceived costs are denoted “PCx” (where “x” stands for the number of question). Since we are measuring costs, all questions are stated in a positive way so as for higher values to show higher costs.

- PC1 The price I paid was high compared to the price I would have paid elsewhere
- PC2 I spent too much time to shop online
- PC3 It was difficult to shop online

Measures of perceived risk of online shopping are based on Kim and Gupta (2009). The abbreviation PR is used instead of “perceived risk”.

- PR1 Internet shopping at this store involves significant uncertainty
- PR2 There is a significant chance of loss in Internet shopping at this store
- PR3 There would be negative outcomes in Internet shopping at this store
- PR4 My credit card and personal information may not be secure with this store

PV1 to PV4, PC1 to PC3, and PR1 to PR4 are measured on a 7-points Likert scale where 1 stands for “strongly disagree” and 7 stands for “strongly agree”. Higher values of PV1

to PV4 are associated with higher perceived, higher values of PC1 to PC3 are associated with higher costs, and higher values of PR1 to PR4 are associated with higher risks. Since there exists a positive relationship answers for each variable, we construct three unique measures of perceived value, perceived costs, and perceived risks. In each, case the unique measure equals the sum of answers to the respective sub-questions.

$$PV = PV1+PV2+PV3+PV4$$

$$PC = PC1+PC2+PC3$$

$$PR = PR1+PR2+PR3+PR4$$

We examine 3 demographic characteristics (denoted “Dx” where “x” stands for the number of demographic characteristic) and 4 cultural characteristics (denoted “Cx” where “x” stands for the number of cultural characteristic) related to internet usage according to Brengman et al. (2005).

D1 Age

D2 Level of education

D3 Monthly personal income

C1 I feel excited to explore travel websites

C2 Most of my travel services purchases are made online

C3 My computer literacy is high

C4 The Web contributes to my life

D2 is measured on a 4-point scale: 1 for those with a maximum of secondary education (up to high school), 2 for those with a bachelor's degree, 3 for master degree holders, and 4 for PhD holders. C1 to C4 are measured on a 7-point Likert scale (1 = “strongly disagree” and 7 = “strongly agree”). As in the case of PV, PC, and PR, we create a unique measure of cultural characteristics, denoted C, as follows: $C = C1+C2+C3+C4$. It is worth mentioning that the questionnaire was translated in Greek as the survey was conducted in Greece. One English teacher had also evaluated the translation in order to confirm its accuracy. After this check, the questionnaire was distributed to 4 adolescents of different age groups in order to identify that everything was clear and comprehensive. The feedback pointed out that none of the items needed restatement.

Statistical methods

Data are analyzed using both descriptive and inferential statistics. First we conduct reliability analysis (Cronbach's alpha) for sub-measures of the same variable (PV, PC, PR, and C) to check their consistency. Next, we report means, medians, standard deviations, and normality tests to provide with a general picture of respondents' answers. Correlation coefficients (Pearson's) are also reported to check for possible linear relationships between variables. Normality tests are performed using the Shapiro-Wilk test. We go on with paired sample t-test to check for mean differences between different measures of the same variable. In case the normal distribution is rejected we use the Wilcoxon signed-rank test. The effect on perceived value is also examined through cross tabulation (chi-square tests). In particular, we test whether answers regarding perceived value significantly differentiate according to particular characteristics (note: continuous variables, i.e. age and monthly personal income, are excluded from the respective analysis). Finally, we estimate a regression model to check which, if any, of the independent variable significantly explains perceived value:

$$PV_i = b_0 + b_1PC_i + b_2PR_i + b_3D1_i + b_4D2_i + b_5D3_i + b_6C_i + e_i$$

where e stands for error term and "i" for "i-th" respondent ($i= 1, \dots$, number of observations).

Regression analysis is also conducted separately for "young" and "old" people, "low" and "high" level of education, "low" and "high" income, and "experts" and "non-experts" (see section of findings for further details) as further test of the effect of personal and cultural differences.

Sample

The population of this study is Greek citizens aged 18 years old and above. The participants were required to have made at least once an online purchase at a website related to travel services. The questionnaire was primarily distributed online via e-mail to friends and fellow-students who were encouraged to forward it to others too. In order to achieve a satisfying number of respondents, the questionnaire was also distributed through Facebook by personal messages to friends and posts in groups that the author has participated in. The main advantage of the online distribution is that questionnaires could be submitted only if all questions were answered.

The survey was conducted in September. A total of 129 responses were gathered from all kinds of sources, a number which is considered sufficient for the purpose of this study.

The following table reports descriptive statistics and results of normality tests for the three demographic variables.

Table 1 Descriptive Statistics and Normality Tests: Demographics

	DESCRIPTIVE STATISTICS					SHAPIRO-WILK		
	Mean	Median	Std. Deviation	Min	Max	W-statistic	df	Sig.
Age	23.5	23	3.63	19	49	.739	125	.000
Level of education	2.2	2	0.53	1	4	.703	125	.000
Monthly personal income	645	400	851	0	5,200	.662	125	.000

The preceding table suggests that our sample consists of rather young people given that the average and median age equal to 23.5 and 23, years, respectively. Half of participants are, at least, university graduates (the median of education level equals 2). Similarly, half of participants earn more than 400 euros per month while the “average” respondent earns 645 euros per month. It is also noted that none of the demographic variables is approximately normally distributed. Consequently, it is preferable to consider median values as central tendency measures to describe the “average” respondent.

Findings

Cronbach's alpha

We initially compute Cronbach's alpha for separate measures of perceived value, perceived cost, perceived risk, and culture. Respective results are reported on the following table.

Table 2 Cronbach's alpha: perceived value, perceived cost, perceived risk, and culture

Cronbach's alpha		Cronbach's alpha	
PV1		PR1	
PV2	.835	PR2	.836
PV3		PR3	
PV4		PR4	
PC1	.743	C1	.695

PC2 **C2**
PC3 **C3**
 C4

As can be seen on the preceding table, 3 out of 4 Cronbach's "a" are well above of the generally accepted threshold value of 0.7. In the case of C1, C2, C3, and C4, Cronbach's "a" equals 0.695 that is actually equal to 0.7 (if it is rounded to 2 decimals). Consequently, we may infer that individual measures capture approximately the same aspects of variables under consideration.

Descriptive Statistics

The following table reports descriptive statistics of all variables and normality test results (except for demographics).

Table 3 Descriptive statistics of all variables and normality test results (except for demographics)

	Descriptive statistics					Shapiro-Wilk		
	Mean	Median	Std. Deviation	Minimum	Maximum	W-statistic	df	Sig.
PV1	5.34	6	1.24	1	7	.887	125	.000
PV2	5.47	6	1.16	1	7	.840	125	.000
PV3	5.04	5	1.42	1	7	.894	125	.000
PV4	5.16	5	1.21	1	7	.921	125	.000
PV	21	21.5	4.13	5	28	.952	125	.000
PC1	2.84	2	1.5	1	7	.874	125	.000
PC2	3.28	3	1.66	1	7	.914	125	.000
PC3	2.76	2	1.41	1	7	.885	125	.000
PC	8.88	8	3.72	3	21	.967	125	.004
PR1	2.58	2	1.48	1	7	.863	125	.000
PR2	2.45	2	1.35	1	7	.820	125	.000
PR3	2.43	2	1.33	1	7	.847	125	.000
PR4	3.05	3	1.57	1	7	.902	125	.000
PR	10.5	10	4.7	4	28	.932	125	.000
C1	4.58	4	1.51	1	7	.939	125	.000
C2	5.04	5	1.7	1	7	.890	125	.000
C3	5.99	6	1.19	2	7	.780	125	.000
C4	5.95	6	1.09	2	7	.824	125	.000
C	21.55	22	4.03	10	28	.953	125	.000

As can be first inferred from the table above, none of the variables under consideration is normally distributed (all p-values of W-statistic are lower than 5%). With respect to perceived value (PV1 to PV4 and PV), we note that respondents attribute higher than average value to online purchases of travel services: both median and average values are higher than 4, i.e. the central value (“neither disagree, nor agree”) of the 7-point scale. The Wilcoxon signed-rank test (results not reported to save space but available from the author) reveals that the difference of median is significant between PV1 and PV3, PV2 and PV3, and PV2 and PV4. Furthermore, the median of PV is significantly higher than 16 (=4*4), suggesting that respondents attribute, totally, higher than average value to online purchases of travel services. To sum, all evidence reported shows that perceived value of online travel services' purchases is high although not the highest possible. Moreover, relevant findings slightly change depending on the measure(s) examined but not to an extent that could alter the general conclusion.

With respect to perceived cost (PC1 to PC3 and PC), we note that both mean and median values are lower than 4, suggesting that cost of online purchases is considered lower than average. It is reminded that questions relating to costs imply that costs are high. Consequently, disagreement denotes low costs. The Wilcoxon signed-rank test (results not reported to save space but available from the author) reveals that the difference of median is significant between all possible pairs of perceived cost measures. Furthermore, the median of PC is, according to Wilcoxon signed-rank test, significantly higher than 12 (=4*3), suggesting that respondents disagree, in total, with the statement that online purchases cost much or more than purchases that could take place elsewhere. To sum, all evidence reported shows that perceived cost of online travel services' purchases is low. Relevant findings slightly change when considering alternative measures of perceived cost but do not alter the general conclusion just reported.

Similar conclusions are drawn upon perceived risk (PR1 to PR4 and PR). Specifically, both median and average values are well below 4 while the median of PR is significantly lower than 16 (=4*4). The Wilcoxon signed-rank test suggests that median is significantly different between PR1 and PR4, PR2 and PR4, and PR3 and PR4. Given that, as in the case of perceived cost, the form of questions relating to perceived risk is

such to imply that online purchases are associated with high risk, respondents' disagreement shows that online purchases are not considered risky. In total, respondents attribute lower than “average” risk to online purchases and this conclusion is consistent despite being slightly modified after considering different measures of risk.

Contrary to the findings for value, cost, and risk, evidence regarding cultural characteristics (C1 to C4 and C) are rather mixed. When C1 is examined, respondents are neither for nor against the argument “I feel excited to explore travel websites” according to medial value (= 4) but slightly agree with it according to mean value (= 4.58). With respect to the rest of measures, both medial and mean values suggest that respondents at least agree with the statement about frequent online purchases, high personal computer literacy, and significance of internet in people's life (C2, C3, and C4, respectively). The Wilcoxon signed-rank test shows that the only pair for which median difference is not significant is C3-C4. Furthermore, the median of C is significantly higher than 16 (= 4*4). Taken together, these findings show that respondents consider themselves as being significantly affected by internet (and computers, in general). This conclusion is moderately altered when the frequency of online purchases is examined. This was somehow expected given that Cronbach's alpha for C1 to C4 is the lowest (= 0.695) among all alphas.

Correlations

The following table reports Pearson correlation coefficients among all variables (demographics are also included). To save space, we only report coefficient values, i.e. p-values are not reported. However, significant correlation coefficients at the 5% (1%) level are indicated with “*” (“***”). Obviously, unmarked coefficients are statistically insignificant.

Table 4 Correlations

	PV1	PV2	PV3	PV4	PV	PC1	PC2	PC3	PC	PR1	PR2
PV1	1										
PV2	.565**	1									
PV3	.549**	.479**	1								
PV4	.495**	.699**	.602**	1							
PV	.794**	.821**	.821**	.845**	1						

PC1	-.139	-.172	-.185*	-.272**	-.233**	1						
PC2	-.077	-.118	-.102	-.247**	-.164	.404**	1					
PC3	-.102	-.127	-.164	-.223*	-.188*	.401**	.675**	1				
PC	-.129	-.170	-.182*	-.304**	-.238**	.736**	.864**	.841**	1			
PR1	-.218*	-.301**	-.187*	-.338**	-.314**	.348**	.509**	.522**	.565**	1		
PR2	-.188*	-.274**	-.136	-.391**	-.295**	.443**	.412**	.389**	.510**	.632**	1	
PR3	-.197*	-.187*	-.175*	-.282**	-.255**	.424**	.466**	.421**	.538**	.565**	.703**	1
PR4	-.061	-.116	-.054	-.266**	-.147	.294**	.396**	.341**	.424**	.417**	.522**	.703**
PR	-.199*	-.265**	-.166	-.388**	-.305**	.455**	.543**	.509**	.618**	.795**	.859**	.703**
D1	.105	-.006	.021	.052	.052	.063	.003	-.041	.011	-.040	-.076	-.076
D2	.102	-.174*	-.052	-.060	-.054	.295**	.142	.168	.247**	.075	.119	.119
D3	-.080	-.025	-.140	-.028	-.088	.030	-.106	.028	-.025	-.055	-.110	-.110
C1	.093	.301**	.158	.265**	.244**	-.079	-.119	-.141	-.138	-.101	-.015	-.015
C2	.251**	.413**	.188*	.262**	.333**	-.093	-.189*	-.269**	-.223*	-.363**	-.138	-.138
C3	.368**	.434**	.204*	.362**	.409**	.087	.053	-.034	.046	-.109	-.125	-.125
C4	.328**	.462**	.357**	.390**	.466**	-.015	.109	.063	.066	-.205*	-.139	-.139
C	.337**	.540**	.295**	.422**	.479**	-.047	-.079	-.159	-.114	-.279**	-.138	-.138

...continued

	PR3	PR4	PR	D1	D2	D3	C1	C2	C3	C4	C
PR3	1										
PR4	.583**	1									
PR	.857**	.780**	1								
D1	-.050	.039	-.036	1							
D2	.114	.017	.096	.425**	1						
D3	.028	-.009	-.044	.259**	.078	1					
C1	-.054	-.088	-.081	-.023	.005	.039	1				
C2	-.119	-.172	-.245**	.146	.044	.100	.530**	1			
C3	-.013	-.076	-.099	.173	.213*	.124	.303**	.357**	1		
C4	-.071	-.077	-.150	.136	.073	-.001	.301**	.273**	.466**	1	
C	-.093	-.149	-.203*	.141	.103	.093	.769**	.799**	.686**	.636**	1

First of all, it is noted that 102 coefficients (out of 231 or 44%) are significant at the 1% level, 19 coefficients (out of 231 or 8%) are significant at the 5% level, and 110 coefficients (out of 231 or 48%) are statistically insignificant. Despite being statistically significant, most coefficients take rather low values, i.e. their absolute value is smaller than 0.7. More specifically, there exist just 14 significant coefficients with an absolute value higher than 0.7. However, these coefficients regard measures of the same variable in all cases. To state it differently, there exists no (significant) correlation between measures of different variables. Consequently, we should, at least up to this point, reject Hypotheses 1 and 2.

Cross tabulation

The following table reports chi square test results to check for independence between the 5 measures of perceived value and independent variables (note: age and monthly personal income are excluded from the respective analysis since they are continuous variables). To save space we omit degrees of freedom.

Table 5 Cross tabulation: perceived value vs. independent variables

	PV1		PV2		PV3		PV4		PV	
	<i>x</i> ²	<i>Sig</i>								
PC1	61.2	.005	67.2	.001	61.0	.006	75.2	.000	152.4	.009
PC2	35.3	.502	51.4	.046	32.7	.628	67.7	.001	151.7	.010
PC3	39.0	.336	116.3	.000	58.4	.011	160.9	.000	267.3	.000
PC	106.0	.228	164.3	.000	128.5	.015	220.5	.000	396.0	.000
PR1	48.2	.084	73.3	.000	51.8	.043	109.2	.000	213.4	.000
PR2	44.0	.169	76.5	.000	36.0	.467	106.0	.000	168.5	.001
PR3	60.1	.007	91.8	.000	57.7	.012	158.6	.000	237.9	.000
PR4	34.5	.539	45.3	.138	36.9	.428	66.2	.002	145.1	.026
PR	120.6	.192	152.9	.003	121.5	.177	218.9	.000	452.3	.000
D2	17.3	.501	67.2	.000	37.1	.005	140.7	.000	178.1	.000
C1	46.7	.109	80.1	.000	54.1	.027	97.7	.000	198.1	.000
C2	62.2	.004	62.3	.004	55.0	.022	80.0	.000	198.9	.000
C3	71.9	.000	87.5	.000	43.2	.057	60.2	.001	190.6	.000
C4	119.3	.000	78.4	.000	58.5	.000	106.6	.000	157.0	.000
C	221.3	.000	253.0	.000	181.4	.000	259.3	.000	574.7	.000

The above table show that, in 60 out 75 cases (or 80%), the hypothesis of independence is rejected. In particular, PV4 and PV are not independent of any of the independent variables (p-value is always lower than 5%) while the same is true for PV2 and PV3 in 14 and 10 cases, respectively. By contrast, the assumption that PV1 is independent of independent variables is rejected in the minority of cases (6 out 15 or 40%). Taken together and with minor exceptions, these results suggest that perceived value is affected by cost, risk, level of education, and cultural characteristics thus leading us not to reject Hypotheses 1 to 4. It should be noted that this conclusion is completely different to the one reported based on correlations.

Regression analysis

The following table reports results on the regression analysis with respect to the model "PV = PC+PR+D1+D2+D3+C". Since more than one independent variables are included,

we also report collinearity statistics. Furthermore, we report the Durbin-Watson statistic to test for serial correlation of errors and the results of Shapiro-Wilk test to check for errors' distribution.

Table 6 Regression analysis: $PV = PC + PR + D1 + D2 + D3 + C$

Model							
R ²	.293						
F	8.164						
F-sig	.000						
Durbin-Watson	1.859						
Shapiro-Wilk W	.992						
W-sig	.647						
Coefficients							
	Unstandardized		Standardized	Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	12.569	2.837		4.430	.000		
PC	-.038	.114	-.033	-.331	.742	.583	1.714
PR	-.145	.087	-.165	-1.670	.097	.616	1.623
D1	.111	.104	.096	1.066	.288	.739	1.353
D2	-.758	.694	-.099	-1.093	.277	.733	1.365
D3	-.001	.000	-.155	-1.934	.056	.929	1.077
C	.457	.082	.448	5.571	.000	.926	1.080

According to F-test results, the assumption of all b-coefficients being equal to zero is rejected at the 5% level ($F\text{-sig} < 0.05$). Furthermore, the Durbin-Watson statistic is very close to 2, indicating that errors are not serially correlated. With respect to collinearity issues, we note that all variance inflation factors (VIF) take low values, lower than the conventional threshold value of 10. This means that collinearity among independent variables is but negligible. It is also noted that the error term is approximately normally distributed ($W\text{-sig} = 0.647 > 0.05$). Perceived cost, perceived risk, level of education, and personal monthly income are negatively related to perceived value while the opposite holds for age and cultural characteristics related to computer-internet use. This means that perceived value is lower for people attributing higher value to perceived costs and risks, people with higher educational level and wealthier people. By contrast, older people and people with greater computer literary and similar characteristics attribute higher value to online purchases of travel services. However, it should be noted that the only statistically significant b-coefficient is that of the

combined measure of cultural characteristics ($t\text{-sig} = 0.000 < 0.05$). A slight increase in the level of significance, say from 5% to 10%, would also turn the coefficients of perceived risk and level of education significant ($t\text{-sig} = 0.097$ and 0.056 , respectively). To sum up, regression analysis offers support for Hypothesis 4 and partial support for Hypotheses 1 and 2.

Effect of demographics and cultural characteristics

To examine if findings differ across different groups of different personal and cultural characteristics, we split the sample into two groups, according to the respective median value of the grouping variable, and repeat regression analysis separately for each group. For example, when age is examined, the sample is split into a sub-sample of “old persons” and “young persons”. The first one includes those that are more than 23 years old and the second one the rest of respondents (median value of age = 23). The following table reports regression analysis results for “young” and “old” people. With comparison to previous regression analysis, we don't report standard errors, betas, t-statistics, and tolerances to save space.

Table 7 Regression analysis for "young" and "old": $PV = PC + PR + D1 + D2 + D3 + C$

	Model		Coefficients		
			B	t-sig.	VIF
Age \leq 23 years	R ²	.28	(Constant)	12.450	.000
	F	6.856	PC	-.006	.960 1.465
	F-sig	.000	PR	-.172	.098 1.469
	Durbin-Watson	1.909	D2	.144	.872 1.048
	Shapiro-Wilk W	.989	D3	.000	.308 1.058
	W-sig	.641	C	.484	.000 1.071
	Model		Coefficients		
			B	t-sig.	VIF
Age > 23 years	R ²	.452	(Constant)	27.608	.000
	F	4.123	PC	-.073	.795 3.227
	F-sig	.007	PR	-.155	.417 2.796
	Durbin-Watson	2.472	D2	-1.823	.154 1.545
	Shapiro-Wilk W	.964	D3	-.002	.019 1.265
	W-sig	.361	C	.124	.577 1.547

With respect to model statistics (F-sig, W-sig etc) no extended difference is observed between the two models. Additionally, both models satisfy regression analysis

assumptions. However, there exist some noticeable differences regarding the relation between perceived value and independent variables. The first difference is that the level of education and personal monthly income are positively related to perceived value in the “young” group but negatively related to perceived value in the “old” one. Moreover, the only significant predictor of perceived value in the “young” group is culture (t-sig = 0.000 < 0.05) while, in the “old” group, perceived value is only significantly related to personal monthly income (t-sig = 0.019 < 0.05). Consequently, we found support for Hypothesis 3.

The above analysis is repeated for the two groups of “low” and “high” level of education. The first one includes high school and university graduates while the second group includes those with a Master's degree and/or PhD. Respective results are reported on the following table.

Table 8 Regression analysis for "low" and "high" educated: PV = PC+D1+D2+D3+C

		Model	Coefficients			
				B	t-sig.	VIF
High school & university graduates	R ²	.373	(Constant)	17.636	.036	
	F	2.861	PC	.025	.924	2.161
	F-sig	.036	PR	-.231	.153	2.008
	Durbin-Watson	1.985	D1	.087	.534	1.089
	Shapiro-Wilk W	.964	D3	-.002	.092	1.495
	W-sig	.399	C	.212	.383	1.550
		Model	Coefficients			
				B	t-sig.	VIF
Master's degree & PhD holders	R ²	.279	(Constant)	11.090	.009	
	F	6.900	PC	-.043	.751	1.734
	F-sig	.000	PR	-.149	.191	1.663
	Durbin-Watson	1.980	D1	.090	.599	1.122
	Shapiro-Wilk W	.990	D3	-.001	.298	1.123
	W-sig	.733	C	.476	.000	1.070

Once again, both models have similar model statistics and satisfy regression analysis assumptions. However, we note that the two models are different to each other at the level of coefficients. In more detail, perceived cost is positively related to perceived value in the group of “low educated” people and negatively related to perceived value in the group of “high educated” people. Another difference relates to significant predictors of perceived value: none in the “low educated” group and culture in the

“high educated” group. This evidence further supports the non-rejection of Hypothesis 3.

The following table reports regression analysis results per group of income: “low” for those earning a maximum of 400 euros monthly and “high” otherwise.

Table 9 Regression analysis for "low" and "high" income: $PV = PC + PR + D1 + D2 + D3 + C$

	Model	Coefficients		
			B	t-sig. VIF
R ²	.316	(Constant)	12.566	.008
Monthly income F	5.627	PC	.014	.933 1.805
≤ 400 euros	F-sig	.000	PR	-.116 .407 1.803
	Durbin-Watson	2.093	D1	-.072 .691 1.234
	Shapiro-Wilk W	.981	D2	-.347 .779 1.178
	W-sig	.411	C	.546 .000 1.098

	Model	Coefficients		
			B	t-sig. VIF
R ²	.269	(Constant)	16.765	.000
Monthly income F	4.050	PC	-.168	.317 1.931
> 400 euros	F-sig	.003	PR	-.166 .171 1.618
	Durbin-Watson	2.005	D1	.012 .923 1.275
	Shapiro-Wilk W	.966	D2	-.220 .814 1.651
	W-sig	.987	C	.360 .005 1.083

As in previous cases, model statistics are similar between the two models and both models satisfy regression analysis assumptions. Perceived cost is positively related to perceived value in the “low” income sample but negatively related to perceived value in the “high” income sample while age is negatively related to perceived value in the “low” income sample but positively related to perceived value in the “high” income sample. Contrary to these differences, age is the only significant predictor of perceived value in both models. Taken together, these results provided strong support for Hypothesis 3.

Finally, differentiation according to culture is examined. People are considered “experts” if C is less than 23 and “non-experts” if C is at least equal to 23 (note: median value of C is 22).

Table 10 Regression analysis for "experts" and "non-experts": $PV = PC + PR + D1 + D2 + D3 + C$

Experts	Model	Coefficients
---------	-------	--------------

(C ≤ 22)			B	t-sig.	VIF
R ²	.104	(Constant)	15.529	.003	
F	1.531	PC	.039	.831	1.777
F-sig	.192	PR	-.140	.306	1.723
Durbin-Watson	2.111	D1	.435	.089	1.848
Shapiro-Wilk W	.979	D2	-1.597	.194	1.598
W-sig	.260	C	-.002	.078	1.386

Model	Coefficients		B	t-sig.	VIF
R ²	.160	(Constant)	24.263	.000	
Non-experts F	1.784	PC	-.069	.654	1.557
(C > 22) F-sig	.135	PR	-.212	.092	1.554
Durbin-Watson	2.343	D1	.016	.874	1.208
Shapiro-Wilk W	.981	D2	.436	.622	1.428
W-sig	.552	C	-.001	.141	1.021

The two models are similar to each other in terms of model statistics but it should be emphasized that none of the independent variables is able to explain any significant portion of perceived value's variance: all b-coefficients are not significantly different from 0 in both models (F-sig > 0.05 for both models). Consequently, we find no evidence to support Hypothesis 4.

Conclusions and suggestions for further research

This study dealt with investigating, both theoretically and empirically, the determinants of perceived value. Although a single definition of perceived value does not exist, perceived value is, mainly, considered a function of perceived costs and risks. However, a number of other factors have been also proposed within relevant literature as factors of perceived value.

Relevant empirical findings lead to no safe conclusion regarding the role of factors assumed to affect perceived value. Using a sample of 128 respondents and a questionnaire of 18 items, the present study examined the role of some of the most frequently cited perceived value factors with respect to Greek purchasers of online travel services. On average, Greek consumers value high online purchases of travel services while the perceived associated costs and risk to be lower than average. We find that measures of perceived value, cost, and risk cited in the relevant literature are consistent with respective variables. With respect to the effect of perceived cost we find that its relation to perceived value is statistically insignificant. The same holds for two demographic characteristics, namely age and level of education. Perceived risk and cultural characteristics (computer literacy, importance of internet etc) are found to be significantly related to perceived value but at a higher than the conventional 5% significance level of (more precisely: at the 10% level). Personal (monthly) income is the only factor that is significantly related to perceived value. Particularly, the respective relation is negative implying that “richer” (“poorer”) people value lower (“higher”) online purchases of travel services. What is more interesting, is that these findings hold no more when the effect of personal characteristics is considered. More precisely, we notice that both the significance and the relation of (some of the) independent variables is different across groups with different age, level of education, and level of education. By contrast, similar results are reported when groups of different cultural characteristics are examined, therefore implying that perceived value is unaffected by such factors.

Besides findings described above, we find that particular measures of perceived value are not independent of perceived value's factors. Moreover, it is noticed that

there exist no significant correlation between perceived value and its assumed determinants irrespective of the perceived value measure considered. These findings contradict each other to a certain degree and raise doubts as to whether linear regression, frequently performed in relevant literature, is an appropriate method to examine the relation between perceived value and its factors. To put it more simply, we find that perceived value is somehow affected by factors considered but the respective relationship is not of linear form. Consequently, future research should be addressed towards examining, more intensively, the exact form of the relationship between perceived value and its determinants. In other words, statistical methods not assuming linearity could add more to the investigation of the topic. Similarly, computer-based methods, such as artificial neural networks, that imitate humans' information processing, could probably assist more in explaining perceived value. Future research could perhaps focus on examining market niches to find if and how perceived value is affected by several factors. From a practical point of view, this could help decision makers at the marketing field to provide customers with custom-made travel as well as other products and services.

Bibliography

Al-Sabbahy, H.Z., Ekinci, Y., and Riley, M. (2004) "An Investigation of Perceived Value Dimensions: Implications for Hospitality Research", *Journal of Travel Research*, Vol. 42, pp.226-234

Anderson, R.E. and Srinivasan, S.S. (2003) "E-Satisfaction and E-Loyalty: A Contingency Framework", *Psychology & Marketing*, Vol. 20, No. 2, pp.123–138

Babin, B.J., Darden, W.R., and Griffin, M. (1994) "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value", *Journal of Consumer Research*, Vol. 20, No. 4, pp.644-656

Bieger, T., Wittmer, A., and Laesser, C. (2007) "What is driving the continued growth in demand for air travel? Customer value of air transport", *Journal of Air Transport Management*, Vol.13, pp.31-36

Bradley, G.L. and Sparks, B.A. (2011) "Antecedents and Consequences of Consumer Value: A Longitudinal Study of Timeshare Owners", *Journal of Travel Research*, Vol. 51, No. 2, pp.191-204

Brengman, M., Geuens, M., Weijters, B., Smith, S.M., and Swinyard, W.R. (2005) "Segmenting Internet shoppers based on their Web-usage-related lifestyle: a cross-cultural validation", *Journal of Business Research*, Vol. 58, pp.79-88

Chen, C.F. and Chen, F.S. (2010) "Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists", *Tourism Management*, Vol.31, pp.29-35

Chen, C.F. and Tsai, M.H. (2008) "Perceived value, satisfaction, and loyalty of TV travel product shopping: Involvement as a moderator", *Tourism Management*, Vol.29, pp.1166-1171

Chen, Z. and Dubinsky, A.J. (2003) "A Conceptual Model of Perceived Customer Value in E-Commerce: A Preliminary Investigation", *Psychology & Marketing*, Vol. 20, No. 4, pp.323-347

Chrepa, E. (2014) "Greek Tourism Set for Another Record Year, Industry Body Says", Bloomberg, February 26, retrieved on June 24, 2014, URL: <http://www.bloomberg.com/news/2014-02-25/greek-tourism-set-for-another-record-year-industry-body-says.html>

Ehrlich, I. and Fisher, L. (1982) "The derived demand for advertising: a theoretical and empirical investigation", *American Economic Review*, Vol.72, pp.366-388

Gallarza, M.G. and Saura, I.G. (2006) "Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour", *Tourism Management*, Vol.27, pp.437-452

Hulten, P. (2012) "Value creation by "muddling" in the B2B sector", *Journal of Business Research*, Vol.65, pp.781-787

Kim, H. and Niehm, L.S. (2009) "The Impact of Website Quality on Information Quality, Value, and Loyalty Intentions in Apparel Retailing", *Journal of Interactive Marketing*, Vol.23, pp.221-233

Kim, H.W. and Gupta, S. (2009) "A comparison of purchase decision calculus between potential and repeat customers of an online store", *Decision Support Systems*, Vol.47, pp.477-487

Lai, C.S., Chen, C.S., and Lin, P.J. (2007) "The Effects of Service Quality on Customer Relational Benefits in Travel Website", PICMET 2007 Proceedings, 5-9 August, Portland, Oregon – USA

Mohd-Any, A.A., Winklhofer, H., and Ennew, C. (2014) "Measuring Users' Value Experience on a Travel Website (e-Value): What Value Is Co-created by the User?", *Journal of Travel Research*, Published online, 17 February, pp.1-15

Parker, P.M. and Tavassoli, N.T. (2000) "Homeostasis and consumer behavior across cultures", *International Journal of Marketing*, Vol. 17, pp.33-53

Petrick, J.F. (2002) "Development of a Multi-Dimensional Scale for Measuring the Perceived Value of a Service", *Journal of Leisure Research*, Vol. 34, No. 2, pp.119-134

Pride, W.M. and Ferrell, O.C. (2003) *Marketing – Text and cases*, Third Edition, The Houghton Mifflin

Prior, D.D. (2013) "Supplier representative activities and customer perceived value in complex industrial solutions", *Industrial Marketing Management*, Vol.42, pp.1192-1201

Sanchez, J., Callarisa, L., Rodriguez, R.M., and Moliner, M.A. (2006) "Perceived value of the purchase of a tourism product", *Tourism Management*, Vol. 27, pp.394–409

Sheth, J.N., Newman, B.I., and Gross, B.L. (1991) "Why We Buy What We Buy: A Theory of Consumption Values", *Journal of Business Research*, Vol. 22, No. 1, pp.159-170

Wang, Y.S., Yeh, C.A., and Liao, Y.W (2013) "What drives purchase intention in the context of online content services? The moderating role of ethical self-efficacy for online piracy", *International Journal of Information Management*, Vol.33, pp.199-208

Wu, L.Y, Chen, K.Y, Chen, P.Y., and Cheng, S.L. (2014) "Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective", *Journal of Business Research*, Vol. 67, pp.2768-2776

Yoon, C. (2009) "The effects of national culture values on consumer acceptance of e-commerce: Online shoppers in China", *Information & Management*, Vol.46, pp.294-301

Zeithaml, V.A. (1988) "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence", *Journal of Marketing*, Vol. 52, No. 3, pp.2-22

Zinkhan, G.M. and Braunsberger, K. (2004) "The complexity of consumers' cognitive structures and its relevance to consumer behavior", *Journal of Business Research*, Vol.57, pp.575-582

Appendix

Questionnaire

The following questionnaire is created for academic purposes. It can be completed by everyone who has made at least one online purchase at a website related to travel services. For example, purchase of travel tickets (ship, airplane, train), hotel booking, travel package. The time required for the completion of the questionnaire is no more than 5 minutes. Thank you very much!

#	Question	Directions to answer	Answer
1	Products purchased at this Web site are very good value for money	1 = strongly disagree 7 = strongly agree	
2	Products purchased at this Web site are considered to be a good buy	1 = strongly disagree 7 = strongly agree	
3	You get what you pay for at this Web site	1 = strongly disagree 7 = strongly agree	
4	Products purchased at this Web site are worth the money paid	1 = strongly disagree 7 = strongly agree	
5	The price I paid was high compared to the price I would have paid elsewhere	1 = strongly disagree 7 = strongly agree	
6	I spent too much time to shop online	1 = strongly disagree 7 = strongly agree	
7	It was difficult to shop online	1 = strongly disagree 7 = strongly agree	
8	Internet shopping at this store involves significant uncertainty	1 = strongly disagree 7 = strongly agree	
9	There is a significant chance of loss in Internet shopping at this store	1 = strongly disagree 7 = strongly agree	
10	There would be negative outcomes in	1 = strongly disagree	

	Internet shopping at this store	7 = strongly agree	
11	My credit card and personal information may not be secure with this store	1 = strongly disagree 7 = strongly agree	
12	Age	As number (eg 28)	
13	Level of education	1= high-school 2 = university 3 = master's degree 4 = PhD	
14	Monthly personal income	As number without dots, eg 1050	
15	I feel excited to explore travel websites	1 = strongly disagree 7 = strongly agree	
16	Most of my travel services purchases are made online	1 = strongly disagree 7 = strongly agree	
17	My computer literacy is high	1 = strongly disagree 7 = strongly agree	
18	The Web contributes to my life	1 = strongly disagree 7 = strongly agree	